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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/733,958 | 12/11/2003 | Gregory Alan Chaney | ROC920030313US1 | 8777 |

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| EXAMINER | |
|---|---|
| VO, THANH DUC | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2189 | |

DATE MAILED: 01/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/733,958 | CHANEY ET AL. | |
| | Examiner | Art Unit | |
| | Thanh D. Vo | 2189 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *11 December 2003*.

2a)☐ This action is **FINAL**. , 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☒ Claim(s) *15 and 20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

1. This Office Action is responsive to the Application filed on December 11, 2003. Claims 1-20 are presented for examination.

Claims 1-20 are pending.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 19 is being indefinite since the applicant failed to particularly point out where to obtain the non-intent seize.

### *Claim Rejections - 35 USC § 101*

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 11-15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 15-20 are not limited to tangible embodiments. In view of Applicant's disclosure, specification 3, paragraphs 29-33 (published applicant's application), the medium is not limited to tangible embodiments in paragraph 0032. At the same time, the medium is limited to tangible embodiments as

disclosed in paragraphs 0030 and 0031 as a storage medium. As such, in view of Applicant's disclosure, the claim is not limited to statutory subject matter and is therefore non-statutory.

### *Claim Objections*

Claims 15 and 20 are objected to because of the following informalities:

The claiming subject matter is a new lexicographer that was defined in the Specifications and being examined and considered in the previous claims. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 2, 6, 7, 11, and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Larson et al (U.S. Patent 6,578,131).

As to claims 1, 6, 11, and 16, Larson et al. disclosed a method, apparatus, and programming medium comprising the steps of:

As apply to claim 16, Larson et al. disclosed a plurality of processors (see claim 2); and a main memory encoded with instructions, wherein the instructions when executed on at least one of the plurality of processors (see claim 1, lines 13-18);

As apply to claim 1, 6, 11, and 16, Larson et al. disclosed: if a seize request for an address is an intent seize, finding a first hash table associated with a first processor of a plurality of processors, wherein the first processor initiated the seize request ; determining whether the address exists in the first hash table; and if the address exists in the first hash table and the seize request is for the intent seize, obtaining the intent seize via a resource associated with the first processor. See col. 6, lines 40 – 65, and claims 59-60; wherein the intent seize is high-occurrence operation.

In addition to claims 11 and 16, Larson et al. also further disclosed a step of: if the address does not exist in the first hash table, anchoring the address in a plurality of hash tables associated with the plurality of processors. See claim 39, lines 61-65.

As to claims 2 and 7, Larson et al. further disclosed the steps of: if the address does not exist in the first hash table, anchoring the address in a plurality of hash tables associated with the plurality of processors. See claim 39, lines 61-65.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 3, 8, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larson et al. (U.S. Patent 6,578,131).

As to claims 3, 8, and 12, Larson et al. further disclosed the method of linking together a plurality of resources associated with the plurality of processors. See col. 7, lines 5-10.

Larson et al. failed to explicitly disclosed the step of: if the address does not exist in the first hash table, linking together plurality of resources associated with the plurality of processors. But it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to realize the advantage of linking the resources from other location within a shared a memory device to reduce the number of miss-hit which is critical to data processing and cache system. Therefore, it would have been obvious and advantageous to link the resources associated with other processors to improve the system operation.

5. Claims 4, 5, 9, 10, 13-15, and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larson et al. (U.S. Patent 6,578,131) in view of Dias et al. (U.S. Patent 5,161,227).

As to claims 4, 9, 13, and 17, although Larson et al. failed to disclose a step further claim in claims 4, 9, 13, and 17. Dias et al. substantially disclosed the step of: if the seize request for the address is a non-intent seize, finding a second hash table associated with a second processor of the plurality of processors, wherein the second hash table is designated for non-intent seizes, regardless of whether the second processor initiated the seize request. See col. 6, lines 25- 68 and col. 7, lines 18-54.

Larson et al. and Dias et al. are from the same field of endeavor, multi-processor with shared memory system.

At the time of applicant's invention it would have been obvious to one having ordinary skill to modify the system of Larson et al. to combine with the system of Dias et al.

The motivation of doing is to thoroughly handling all of the possible access request provided by the processor including intent and non-intent seize in order to classify the lock type of each access request to prioritizing the system resource to perform a certain task in the most efficient manner.

As to claims 5, 10, 14 and 18, Larson et al. disclosed the step of anchoring the address in the hash table for intent seizes.

Larson et al. failed to disclose the step of anchoring the address in the hash table for non-intent seize, wherein Dias et al. disclosed the step of: anchoring the address in the hash table if the seize request is for the non-intent seize. See col. 7, lines 32-35.

Larson et al. and Dias et al. are from the same field of endeavor, multi-processor with shared memory system.

At the time of applicant's invention it would have been obvious to one having ordinary skill to modify the system of Larson et al. to combine with the system of Dias et al.

The motivation of doing so is to introduce a system that performs the non-intent task as disclosed in previous claims which is identical to the step of anchoring the address for the intent seize. Therefore, it would have been obvious to one having an ordinary skill in the computer at to recognize the advantage of performing the intent and non-intent seize in a single system in order to perform multiple tasks at a given period of time.

As to claims 15 and 20, Larson et al. and Dias et al. substantially disclosed intent seize is less restrictive, which has high occurrence operation. And non-intent is more restrictive seize and having lower occurrence operation. Claims 15 and 20 are further claiming the lexicographer which was examined and considered in claims 11 and 16. Therefore, claims 15 and 20 are rejected under the same rationale.

As to claim 19, although Larson et al. failed to disclosed to obtain the non-intent seize if the seize request is for the non-intent seize and the address does not exist in the second hash table. Dias et al. disclosed the method of obtaining the non-intent seize if the address does not exist in the hash table. See col. 9, lines 7-13.

Larson et al. and Dias et al. are from the same field of endeavor, multi-processor with shared memory system.

At the time of applicant's invention it would have been obvious to one having ordinary skill to modify the system of Larson et al. to combine with the system of Dias et al.

The motivation of doing so is to provide a system which operates correspondently with the access request from a processor that includes intent and non-intent seize. In addition, it is a required function in the system in order to establish a region of operation for the a seize request if it is not currently existed. In doing so, the next identical seize request will be able to use or update the previously defined seize.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh D. Vo whose telephone number is (571) 272-0708. The examiner can normally be reached on M-F 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on (571) 272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TV

Thanh D. Vo

Patent Examiner

01/06/2006

TUAN V. THAI
PRIMARY EXAMINER